IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of Alphons A.M.L. Bruekers DATA COMPRESSION/EXPANSION ON A PLURALITY OF DIGITAL INFORMATION SIGNALS Serial No. 10/626,427 Filed: July 24, 2003	Group Art Unit: 2637 Examiner: Temesghen Ghebretinsae I hereby certify that this correspondence is being deposited today with the United States Postal Services as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patent Commissioner for Patents P.O. Box 1450 Alexandria VA. 22313-1450 James D. Leimbach Name: James D. Leimbach Registration No. 34,374 Date: February 4, 2006

Mail Stop Appeal Brief-Patent
Honorable Commissioner of Patents and Trademarks
Alexandria VA. 22313-1450

Sir:

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Real party in interest

The real party of interest is the Assignee who is U. S. Philips Corporation, a corporation existing under the laws of the State of Delaware (hereinafter Appellant).

Related appeals and interferences

There are no related appeals or interferences to the present application that are known to appellants, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of the Claims

Claims 1-25 are claims that were filed in a Reissue Application for the present application for invention. Claims 1-25 as filed with the present Reissue Application for invention are drawn to a method of data expanding a data compressed composite information signal obtained from at least a first and second digital information signal. Claims 20-21 stand rejected as the claims that are currently being appealed. There are no rejections to claims 1-19 or claims 22-25. A copy of claims 1-25 is contained in Appendix I following this brief.

Status of the Amendments After Final

A response was filed subsequent to the final rejection to overcome the Examiner's rejection of claims 1-25 under 35 U.S.C. §251 and claims 20-21under the provisions of 35 U.S.C. §102(b). It should noted that the Advisory Action dated October 20, 2005 does not specifically indicate that the Oath and Declaration overcame the rejection under 35 U.S.C. §251; however, it is assumed that the rejection under 35 U.S.C. §251 has been obviated by the Oath and Declaration because the Advisory Action filed September 20, 2005 makes no mention of this rejection. The Advisory Action states that the rejection of claims 20-21under the provisions of 35 U.S.C. §102(b) stand.

Summary of the Claimed Subject Matter

The appealed claims define subject matter for a method expanding a data compressed composite information signal.

Appealed claim 20 defines subject matter for a method of data expanding a data compressed composite information signal (such as that received an input terminal 70 shown in Figure 7 an discussed on col. 5, lines 20-26) obtained from at least a first and second digital information signal (as described on col. 5, lines 41-48).

The method includes the steps of receiving the data compressed composite information signal (such as that received an input terminal 70 shown in Figure 7 an discussed on col. 5, lines 20-26); and data expanding the data compressed composite information signal in response to a control signal (the control input 73 receives the control signal and the data expansion unit adapted 74 being adapted to data expand in response to a control signal as discussed on col. 5, lines 33-40) to obtain a data expanded composite information signal, the data expanded composite information signal comprising samples of the first and second digital information signal merged after each other into one datastream (as described on col. 5, lines 41-56, it should be noted that the composite signal obtained by data compression unit 12 in Figure 1 discussed on col. 5, lines 43-46 is discussed on col. 3, lines 21-28).

Grounds of Rejection to be Reviewed on Appeal

The Advisory Action mailed October 20, 2005 indicated that the rejections to claim 20-21 stand. Claims 20 and 21 are the appealed claims. Appealed claims 20 and 21 are rejected under the provisions of 35 U.S.C. §102(b) has been anticipated by U.S. Patent No. 5,544,247 issued in the name of Ten Kate (hereinafter referred to as *Ten Kate*).

Argument

The rejection of appealed claims 20 and 21 under the provisions of 35 U.S.C. §102(b) as being anticipated via over *Ten Kate*

A. The rejection under 35 U.S.C. S 102(e)

Appealed claims 20 and 21 are rejected under the provisions of 35 U.S.C. §102(b) as being anticipated by *Ten Kate* (U.S. Patent No. 5,544,247). The examiner's position is that *Ten Kate* disclose every element defined by appealed claims 20 and 21.

The MPEP at §2131 states that in order to anticipate a claim, the reference must teach every element of the claims. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The MPEP at §2131 states that the "identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

B. <u>The reference</u>

Ten Kate (U.S. Patent No. 5,544,247) teach expansion means having an input coupled to reducing means for carrying out data expansion on the data applied to its input to obtain a replica of the signal applied to the input of the reducing means (see Abstract).

Ten Kate, on col. 5, line 67-col. 6, line 16, discusses Figure 1a and the transmitter to transmit left signal component L, right hand signal component, and a central audio signal an auxiliary signal. The left signal component L is applied to switch 71', the right signal component is applied to switch 71' and the central signal C is applied to switch 71'. Therefore, it is clear the switch 71' only passes one of the left signal component L, the right hand signal component, or a central audio signal C at a given time.

Ten Kate teaches to apply the output of switch 71' to first compression means 3. Accordingly, it is clear that the compression means 3 receives one of the left signal component L, the right hand signal component, or a central audio signal C at a given time and do not disclose or suggest the compression means 3 receiving a composite information signal. As described on col. 7, lines 12-16 *Ten Kate,* the expansion means 7 realizes a dequantization on the quantized signals to generate a replica of the signal component applied to input 4. Note that the discussion within *Ten Kate* relates to the expansion means 7 realizing a dequantization of the signal component applied to input 4; which clearly indicates a single component and not plural components or any for composite components. *Ten Kate*, clearly teaches that the compressed data supplied to the expansion means 7 is not composite data.

Accordingly, *Ten Kate*, clearly teaches that the respective components L, R, and C are individually compressed before application of these signals to the dequantizer.

C. The differences between the invention and the reference

Appealed claim 20

Appealed claim 20 defines a method of data expanding a data compressed composite information signal obtained from at least a first and second digital information signal. The method of appealed claim 20 includes the steps of: receiving the data compressed composite information signal; data expanding the data compressed composite information signal in response to a control signal to obtain a data expanded composite information signal, the data expanded composite information signal comprising samples of the first and second digital information signal merged after each other into one datastream.

Ten Kate clearly illustrates in Fig. 1a and the discussion related thereto on col. 5, line 67-col. 6, line 16, a transmitter to transmit left signal component L, right hand signal component, and a central audio signal an auxiliary signal. The left signal component L is applied to switch 71', the right signal component is applied to switch 71' and the central signal C is applied to switch 71'. Accordingly, switch 71' only passes one of the left signal component L, the right hand signal component, or a central audio signal C at a given time.

Ten Kate to apply the output of switch 71' to first compression means 3. It is abundantly clear that the compression means 3 of *Ten Kate* do not receive composite information signal. *Ten Kate* on col. 7, lines 12-16 described the expansion means 7 realizes a dequantization of the quantized signals to generate a replica of the signal component applied to input 4. It should be noted that expansion means 7 of *Ten Kate* realizes a dequantization of the signal component that is applied to input 4 and not plural components or composite signals. *Ten Kate*, do not disclose or suggest receiving the data compressed composite information signal; data expanding the data compressed composite information signal as defined by appealed claim 20.

Ten Kate clearly teaches that the respective components L, R, and C are individually compressed before application of these signals to the dequantizer. Appealed claim 20 defines subject matter for receiving of a data compressed composite information signal and expanding the compressed composite information signal in response to a control signal to obtain samples of the first and second digital information signal merged after each other into one

datastream; which is not disclosed or suggested by *Ten Kate*.

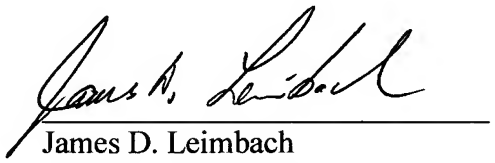
Appealed claim 21

Appealed claim 21 defines subject matter for the method of claim 20, further characterized by the steps of retrieving individual samples from the data expanded composite signal so as to obtain replicas of the at least first and second digital information signals, supplying the replicas of at least the first and second digital information signals. The subject matter described by appealed claim 21 is discussed on col. 5, lines 47-56 of the specification to the present invention. *Ten Kate* does not disclose or suggest retrieving individual samples from the data expanded composite signal so as to obtain replicas of the at least first and second digital information signals, supplying the replicas of at least the first and second digital information signals

Conclusion

In summary, the examiner's rejections of the claims are believed to be in error for the reasons explained above. The rejections of each of claims 1-20 should be reversed.

Respectfully submitted,



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APPENDIX I. Claims on Appeal

1. A data compression apparatus for data compressing at least a first and second digital information signal, each of the at least two digital information signals comprising subsequent samples, the apparatus comprising:

means for receiving the first and second digital information signal;

signal combination means for combining the first and second digital information signal to obtain a composite information signal;

data compression means for data compressing the composite information signal to obtain a data compressed composite information signal;

output means for supplying the data compressed composite information signal, wherein the signal combination means comprises merging means for merging samples of the first and second digital information signal after each other into one datastream to obtain said composite information signal;

said data compression means having a control input for receiving a control signal, the data compression means being adapted to data compress the composite information signal in response to said control signal, control signal generation means being available for generating said control signal, said control signal generation means having an input for receiving said composite information signal and being adapted to generate said control signal in response to said composite information signal.

2. A data compression apparatus as claimed in claim 1, wherein said control signal is representative of a statistical parameter of the composite signal.

3. Apparatus as claimed in claim 1, for data compressing a number of n digital information signals, where $n \geq 2$, characterized in that the signal combination means are adapted to cyclically merge one sample of each of the n digital information signals after each other into said composite information signal.

4. Apparatus as claimed in claim 1, characterized in that the data compression means comprise

lossless compression means.

5. A data compression apparatus for data compressing at least a first and a second digital information signal, each of the at least two digital information signals comprising subsequent samples, the apparatus comprising:

means for receiving the first and second digital information signal;

signal combination means for combining the first and second digital information signal to obtain a composite information signal;

data compression means for data compressing the composite information signal so as to obtain a data compressed composite information signal;

output means for supplying the data compressed composite information signal, wherein the signal combination means comprises merging means for merging samples of the first and second digital information signal after each other into one datastream to obtain said composite information signal;

said data compression means having a control input for receiving a control signal, the data compression means being adapted to data compress the composite information signal in response to said control signal, control signal generation means being available, for generating said control signal, said control signal generation means having an input for receiving said composite information signal and being adapted to generate said control signal in response to said composite information signal;

said data compression means comprising lossless compression means; and

said data compression apparatus further comprising prediction means for carrying out a prediction step on the composite information signal to obtain a residual composite signal, the lossless compression means being adapted to carry out a lossless compression step on the residual composite signal to obtain said data compressed composite information signal.

6. Apparatus as claimed in claim 4, characterized in that the lossless compression means comprise a Huffman type encoder or an arithmetic coder.

7. Transmitter for transmitting a data compressed digital information signal via a transmission medium, wherein the transmitter comprises the data compression apparatus as claimed in claim

1, the transmitter further comprising means for applying the data compressed composite information signal to the transmission medium.

8. Transmitter as claimed in claim 7, wherein the transmitter further comprises error correction encoding means and/or channel encoding means, for error correction encoding and/or channel encoding the data compressed composite information signal prior to applying the data compressed composite information signal to the transmission medium.

9. Transmitter as claimed in claim 7, which is in the form of a recording apparatus for recording the data compressed composite information signal in a track on a record carrier, comprising writing means for writing the data compressed composite information signal on the record carrier.

10. A data expansion apparatus for data expanding a data compressed composite information signal obtained from at least a first and second digital information signal, formed from the merging of samples of the first and second digital information signal after each other, the apparatus comprising:

input means for receiving the data compressed composite information signal;

data expansion means for data expanding the data compressed composite information signal to obtain a data expanded composite information signal;

retrieval means for retrieving a replica of the first and second digital information signal from the data expanded composite information signal;

output means for supplying the replicas of at least the first and second digital information signals, wherein the retrieval means are adapted to retrieve individual samples from the data expanded composite signal to obtain said replicas of the at least first and second digital information signals;

said data expansion means having a control input for receiving a control signal, the data expansion means being adapted to data expand the data compressed composite information signal in response to said control signal to obtain said data expanded composite information signal, control signal generation means being available, for generating said control signal.

11. A data expansion apparatus as claimed in claim 10, wherein said control signal is representative of a statistical parameter of the data expanded composite signal.

12. Apparatus as claimed in claim 10, for data expanding a data compressed composite information signal obtained from a number of n digital information signals, where n.gtoreq.2, characterized in that the retrieval means are adapted to cyclically retrieve one sample of each of the n digital information signals after each other from said data expanded composite information signal.

13. Apparatus as claimed in claim 10, characterized in that the data expansion means comprise lossless expansion means.

14. A data expansion apparatus for data expanding a data compressed composite information signal obtained from at least a first and a second digital information signal, the apparatus comprising:

input means for receiving the data compressed composite information signal;

data expansion means for data expanding the data compressed composite information signal to obtain a data expanded composite information signal;

retrieval means for retrieving a replica of the first and second digital information signal from the data expanded composite information signal;

output means for supplying the replicas of at least the first and second digital information signals, wherein the retrieval means are adapted to retrieve individual samples from the data expanded composite signal to obtain said replicas of the at least first and second digital information signals;

said data expansion means having a control input for receiving a control signal, the data expansion means being adapted to data expand the data compressed composite information signal in response to said control signal to obtain said data expanded composite information signal, control signal generation means being available, for generating said control signal;

said data expansion means comprising lossless expansion means; and said data expansion apparatus further comprising prediction means for carrying out a prediction step on the signal supplied by the lossless expansion means to obtain said data expanded composite information

signal.

15. Receiver for receiving a data compressed composite information signal from a transmission medium, wherein the receiver comprises the data expansion apparatus as claimed in claim 10, the receiver further comprising receiver means for receiving the data compressed composite information signal from the transmission medium.

16. Receiver as claimed in claim 15, wherein the receiver further comprises channel decoding means and/or error correction means, for channel decoding and/or error correcting the data compressed composite information signal prior to data expanding the data compressed composite information signal.

17. Receiver as claimed in claim 15, which is in the form of a reproducing apparatus for reproducing the data compressed composite information signal from a track on a record carrier, comprising reading means for reading the data compressed composite information signal from the record carrier.

18. A method of data compressing at least a first and second digital information signal, each of the at least two digital information signals comprising subsequent samples, the method comprising the steps of:

receiving a composite information signal having samples of the first and second digital information signal merged after each other into one datastream; generating a control signal form said composite information signal;

data compressing the composite information signal in response to said control signal to obtain a data compressed composite information signal; and supplying the data compressed composite information signal.

19. The method of claim 18, characterized in that the receiving step comprises the substeps of

receiving the first and second digital information signal,

merging the samples of the first and second digital information signal after each other into one datastream so as to obtain said composite information signal.

20. A method of data expanding a data compressed composite information signal obtained from at least a first and second digital information signal, the method comprising the steps of:

receiving the data compressed composite information signal;

data expanding the data compressed composite information signal in response to a control signal to obtain a data expanded composite information signal, the data expanded composite information signal comprising samples of the first and second digital information signal merged after each other into one datastream.

21. The method of claim 20, further characterized by the steps of retrieving individual samples from the data expanded composite signal so as to obtain replicas of the at least first and second digital information signals, supplying the replicas of at least the first and second digital information signals.

22. Record carrier obtained with the transmitter as claimed in claim 9, comprising the data compressed composite signal recorded in a track on said record carrier.

23. The data expansion apparatus of claim 10, wherein the control signal generation means include an input for receiving said data expanded composite information signal and generate the control signal in response to the data expanded composite information signal.

24. The data expansion apparatus of claim 14, wherein the control signal generation means include an input for receiving said data expanded composite information signal and generate the control signal in response to the expanded composite information signal.

25. The method of claim 20, wherein the method further comprises the step of generating the control signal from the data expanded composite information signal.